REMARKS

Claims 1-20 are pending. Claims 8-20 are withdrawn from consideration. Claims 21-23 have been added. Claims 1, 4, and 6-7 have been amended. Support for the amendments may be found in the Specification as filed at least on page 3, lines 6-8, page 9, lines 27-29, and FIGS. 6, 7, and 9. No new matter has been added. The rejections of the claims are respectfully traversed in light of the amendments and following remarks, and reconsideration is requested.

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner et al. (U.S. Patent No. 6,475,809) ("Wagner"). In particular, the Examiner writes in part that Wagner "discloses a protein array having a substrate which processes a ultraflat surface with a mean roughness less than about 5 angstroms (column 3, lines 50-55)" and thus it is "inherent that the surface roughness [is] less than the height of molecules in the spots on the surface."

Applicants submit that Wagner discloses the following:

> At least one coating may be formed on the substrate or applied to the substrate of an array of the present invention such that the coating is positioned between the substrate and the monolayer of each patch.
>
> The coating, or the substrate itself if no coating is used, may optionally possess an ultraflat surface with a mean roughness of less than about 5 angstroms for areas of at least 25μm^2. (Wagner, col.3, lines 47-55) (emphases added).
>
> Diffusion boundaries between the patches may be integrated as topographic patterns or surface functionalities with orthogonal wetting behavior. For instance, walls of substrate material or photoresist may be used to separate some of the patches from some of the others or all of the patches from each other. (Wagner, col.9, line 64-col.10, line 2) (Emphasis added).

Thus, Wagner at most discloses a flat surface for each discrete patch on a substrate, with diffusion boundaries separating the patches. In one example, Wagner discloses topographical features such as walls of substrate material or photoresist may be used to separate the patches. Wagner does not disclose or suggest an entire surface of a biochip slide having a low degree of roughness to permit separate resolution of the spots on the array being imaged.

In contrast, amended Claim 1 recites "a transparent slide having a surface on which the spots are placed, the entire surface having a surface roughness of less than the height of molecules in the spots on said surface."

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Similarly, amended Claim 6 recites a "slide having a first surface, the entire surface having a surface roughness of less than about 300Å."

Similarly, amended Claim 7 recites a "slide having first and second parallel planar surfaces, the entirety of at least one of said surfaces having a surface roughness of less than about 300Å."

Therefore, because Wagner does not disclose or suggest all the limitations of Claims 1, 6, and 7, Claims 1, 6, and 7 are patentable over Wagner.

Claims 2-5 are dependent on Claim 1 and contain additional limitations that further distinguish them from Wagner. Therefore, Claims 2-5 are allowable over Wagner for at least the same reasons provided above with respect to Claim 1.

Claims 21-23 have been added. Claims 21-23 are dependent on Claim 1 and contain additional limitations that further distinguish them from Wagner. Therefore, Claims 21-23 are allowable over Wagner for at least the same reasons provided above with respect to Claim 1.

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CONCLUSION

Applicant believes pending Claims 1-7 and 21-23 are now in condition for allowance and allowance of the Application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicant's Attorney at (949) 752-7040.

Certification of Facsimile Transmission

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

June 9, 2005
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Respectfully submitted,

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